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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,485	02/26/2004	Simon Chang	N1085-00199 [TSMC2003-04]	7010
54657 7590 07/27/2007 DUANE MORRIS LLP IP DEPARTMENT (TSMC) 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103-4196			EXAMINER ADAMS, GREGORY W	
			ART UNIT 3652	PAPER NUMBER
			MAIL DATE 07/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/787,485

Applicant(s)

CHANG ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-10,12-15 and 17-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10,12-15 and 17-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7, 9-10, 12, 14-15, 17-21, 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Disclosed Prior Art (Applicants specification pages 1-5 and FIGS. 1-3; hereinafter referred to as "ADPA") in view of Kimura et al. (US 6,439,822).

With respect to claim 1, 10, 14, 15, 20, 23, 27, ADPA discloses in FIGS. 1-3 -

- a first material transport subsystem 120, 312 traveling along a first rail at a first height;
- a second material transport 122, 316 subsystem traveling along a second rail at a second height;
- and a predetermined material stocker 114, 304 having a material transfer port 314;
- wherein the material transfer port has an elongated opening within a sidewall of the material stocker, and
- wherein both the first and second material transport subsystems are serviced by an integrated rail subsystem for exchanging predetermined materials through the material transfer port with a predetermined material stocker under a ceiling with a uniform height.

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ADPA does not disclose a material transfer port to be shared by both the first and second transport subsystems and the elongated opening accommodates both the first material transport subsystem and the second material transport subsystem and has a vertical dimension larger than a sum vertical dimensions of at least two cassettes.

Kimura discloses in FIG. 19 a material transport system for an integrated circuit manufacturing factory-

- having a material transfer port to be shared by both the first ("OHT") and second ("AGV") transport subsystems,
- wherein a material transfer port has an elongated opening that accommodates both a first material transport subsystem and a second material transport subsystem and has a vertical dimension larger than a sum vertical dimensions of at least two cassettes

Kimura teaches reducing and/or eliminating the moving space requirements for a automatic transfer robot in a clean room size improving production equipment layout efficiency. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the port of ADPA to include material transfer port to be shared by both the first and second transport subsystems and the elongated opening accommodates both the first material transport subsystem and the second material transport subsystem and has a vertical dimension larger than a sum vertical dimensions of at least two cassettes, as per the teachings of Kimura, to improve plant layout.

With respect to claims 3, 17, ADPA discloses in FIGS. 1-3 a predetermined material stocker located between the production bay and a main corridor.

With respect to claims 4, 18, ADPA discloses in FIGS. 1-3 a second material transport subsystem is an interbay material transport subsystem for providing material transfer between a predetermined material stocker and at least one other material stocker.

With respect to claims 5, 19, ADPA discloses in FIGS. 1-3 a second material transport subsystem located outside of a production bay and within a main corridor.

With respect to claims 7, 12, 21, ADPA discloses in FIGS. 1-3 a material transfer port located on a main corridor side of the predetermined material stocker.

With respect to claim 9, ADPA discloses in FIGS. 1-3 first and second material transport subsystems that operate simultaneously.

With respect to claim 24, ADPA discloses in FIGS. 1-3 that a first material transport subsystem is an overhead transport and a second material transport subsystem is an overhead shuttle system.

With respect to claims 25, 26, ADPA discloses that a first material transport subsystem comprises an intrabay material transport subsystem for providing material transfer within a production bay or between a production bay and a predetermined material stocker.

Claims 8, 13, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Disclosed Prior Art (Applicants specification pages 1-5 and FIGS. 1-3;

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hereinafter referred to as "ADPA") in view of Kimura et al. (US 6,439,822) and Bonora et al. (US 6,468,021).

With respect to claims 8, 13, 22, ADPA does not disclose a factory having a ceiling height of 3-5 meters. Bonora et al. discloses adapting a material transport system 14 to any ceiling height because the key height is elevating the system approximately seven feet from the floor which allows easy human access to a workstation 16. C6/L35-50. As ADPA makes clear to locate transport systems at a height to deposit at a port, Bonora teaches that a skilled artisan could modify the transport systems to any height of ceiling so long as humans can access the workstation, e.g. stocker. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of ADPA to include a ceiling height of 3-5 meters, as per the teachings of Bonora et al., such that humans can access the workstation.

Response to Arguments

Applicant's arguments with respect to at least claims 1, 10 & 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 5,536,128 to Shimoyashiro et al. discloses two rails, one above the other servicing a single port.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

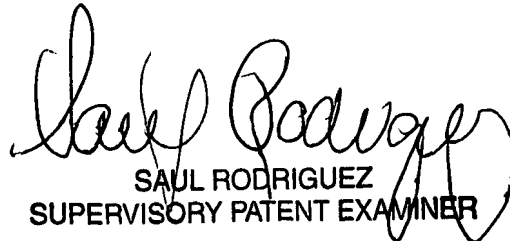
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GWA


SAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER